

## PATENT COOPERATION TREATY

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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference AT-SAR-9703-PCT	<b>FOR FURTHER ACTION</b>		See Form PCT/PEA416
International application No. PCT/GB2004/004747	International filing date (day/month/year) 12.11.2004	Priority date (day/month/year) 14.11.2003	
International Patent Classification (IPC) or national classification and IPC C11D3/39, C11D17/04, C11D3/18, C11D3/37, C11D17/00			
Applicant CHEMLINK SPECIALITIES LTD et al			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 8 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 4 sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input checked="" type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand  10.06.2005		Date of completion of this report  21.03.2006	
Name and mailing address of the International preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer  Loiselet-Taisne, S  Telephone No. +31 70 340-2772	



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2004/004747

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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3 and 23.1(b))
    - ☐ publication of the international application (under Rule 12.4)
    - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-13 as originally filed

**Claims, Numbers**

1-25 filed with telefax on 10.06.2005

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
    - ☐ the description, pages
    - ☐ the claims, Nos.
    - ☐ the drawings, sheets/figs
    - ☐ the sequence listing (*specify*):
    - ☐ any table(s) related to sequence listing (*specify*):
  4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
    - ☐ the description, pages
    - ☒ the claims, Nos. 4, 11
    - ☐ the drawings, sheets/figs
    - ☐ the sequence listing (*specify*):
    - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

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1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 4 and 11

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 4 and 11 are so unclear that no meaningful opinion could be formed (*specify*):

**see separate sheet**

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos.

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	7-10, 12, 13, 18-25
	No: Claims	1-3, 5-6, 14-17
Inventive step (IS)	Yes: Claims	20-24
	No: Claims	1-3, 5-10, 13-19, 25
Industrial applicability (IA)	Yes: Claims	1-3, 5-10, 12-25
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

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**Re Item I**

**Basis of the report**

The report is based on the amended claims 1-3, 5-10, 12-25 and the originally filed renumbered claims 4 and 11, for the following reasons:

**1.1 Allowable amendments**

Claim 1 has been amended to include the features of original claims 3 and 6 and to relate to a cleaning composition, the basis of which can be found on page 11 line 1.

Original claims 20 and 22 have been amended to include the feature of the original claim 3. New claim 25 has been added and has for basis page 11, line 1 of the description. In accordance with Art. 34(2)(b) PCT, such amendments do not go beyond the disclosure in the international application as filed and are therefore allowable.

Therefore the report is based on such amended claims and the renumbered claims.

**1.2 Unallowable amendment**

The reference to % in the application has been amended to relate to % by weight in the amended claims 4 and 11 **without any basis in the international application as filed.**

Therefore **such amendments go beyond the disclosure in the international application as filed**, which contravenes Art. 34(2)(b) PCT, and are therefore unallowable. Therefore the report should be based on the renumbered claims 4 and 11 as originally filed.

**Re Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The application as originally filed did not meet the requirements of Article 6 PCT, because % in the composition were given without reference about the method of measurement (in weight or in volume), which rendered the claims 5 and 13 as originally filed, the examples and the description (p.6 par.5, p.7 par.2, p.8 par.6, p.11 par.2) not clear. As amended renumbered claims 4 and 11, which aimed to overcome the clarity objection concerning these originally filed claims, are not allowable (see above paragraph 1.2) and as such unclarity still persists, then these claims would not be considered in the report.

Re Item V

**V.1 State of the art**

The following documents are referred to in this communication:

D1 : US 5 328 489 A (BEAUJEAN HANS-JOSEF ET AL)	(1994-07-12)
D2 : US-A-5 783 657 (PAVLIN ET AL)	(1998-07-21)
D3: US 6 228 825 B1 (FIORE MELISSA ET AL)	(2001-05-08)

**V.2 Novelty objection**

The present application does not meet the criteria of Article 33(1) PCT, because **the subject-matter of claims 1-3, 5-6, 14-17 is not new** in regard of **D1** in the sense of Article 33(2) PCT.

V.2.1 D1 does not disclose a composition located in a single compartment of an aqueous sensitive device, nevertheless the wording "locatable in a single compartment of an aqueous sensitive device" is a limiting feature of the scope of protection only in the sense that the composition should not contain an amount of water sufficient to disintegrate the aqueous sensitive device. As worded "locatable" it can also be not "located".

Document **D1** discloses (see D1: claims 1, 2 and 3 and examples 2 and 7) a cleaning composition suitable for use in a laundry washing process, including at least one aqueous sensible component (50-65% by weight of perborate monohydrate bleach) suspended in a non-aqueous liquid carrier including paraffin oil, **which is a mineral oil explicitly used in examples 2 and 7 and claimed in claim 2**, an emulsifying agent (C12/18 coconut oil alcohol + 7 EO) and an auxiliary component specifically in form of **soap used to increase the viscosity of the liquid phase** because soap constitutes the only exemplified auxiliary component (see D1: ex. 7, claims 1, 2, 3, col.2 lines 52-53, which combine all the features of new claim 1). This final composition is packed in plastic tubes or cartridges (see col.3 l.43-44) and therefore these tubes or cartridges form a device **suitable** for containing such composition.

**Therefore the subject-matter of amended claims 1-3, 5-6, 14-16 is not new.**

V.2.2 **D3** discloses a water soluble package comprising a nonaqueous liquid automatic dishwashing composition, which is detrimental to the novelty to claims 16 and 17, which are directed to device **suitable** for containing composition as defined in claim 1 but which is also suitable for the composition as defined in D3.

**Therefore the subject-matter of amended claims 16 and 17 is not new.**

### V.3 Inventive step objection in light of D3 in combination with D2

The present application does not meet the criteria of Article 33(1) PCT, because **the subject-matter of claims 18, 19 and then also of claims 1-3, 5-10, 13-17 and 25 does not involve an inventive step** in the sense of Article 33(3) PCT.

The document **D3** is regarded as being the closest prior art to the subject-matter of claim 18.

**D3** discloses (claims 1 and 2, col.4 line 46 to col.5 line 7, example 1, col.3 lines 54-57) a water soluble sachet containing a dishwashing composition contained in a single compartment, said composition including (viii) enzyme, (viii) a peroxygen bleaching agent, (x) a bleach activator and (b) a non-aqueous carrier component including (i) PEG Mw= 200 - 1,200 and (ii) polyethylene glycol having a molecular weight of 2,600 to 4,000 as a thickener for the nonaqueous liquid dishwashing composition (see claims 1, 2, ex.1), nonionic surfactant, which is a good emulsifying agent.

The subject-matter of claim 18 differs to D3 in the addition of **mineral oil** to a gelling agent of the non-aqueous carrier component.

The problem to be solved by the present invention may therefore be regarded as to provide a non-aqueous carrier component with better stability with time (see in the present application column 3 comments of the Applicant towards acknowledged D3) and advantageous in terms of cost (see in the present application the last paragraph of the description) .

However, these features have already been employed for the same purpose in a similar composition.

Document **D2** comes from an allied technical field and discusses gels suitable for household cleaning (see D2: col.3 l.41). D2 (see D2: claims 1, 14, 18, col.2 l.9-18, col.14 l.43-47) teaches a **self supporting gel** of pure hydrocarbon, which is a mineral oil, in combination of a gelling agent in a non-aqueous carrier component to provide personal care relatively inexpensive, which can also be used in household cleaner formulation. D2 discloses a method of manufacturing a composition for cleaning process containing mineral oil and a gelling agent, said method includes the steps of mixing the mineral oil and the gelling agent (ester-terminated polyamide resin) together at elevated temperature until the resin completely dissolves in the mineral oil (see cited passages of D2) to form homogenous mixture. It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply these features with corresponding effect to the

composition contained in a water-soluble sachet, according to document D3, thereby arriving at a water soluble sachet containing such composition according to claim 18. **Therefore, the subject-matter of claims 1-3, 5-10, 13-19 and 25 does not involve an inventive step**

**V.6 INDEPENDENT CLAIM 20 and its dependent claims 21-24**

**The subject-matter of claim 20 and its dependent claims 21-24 is new and involves an inventive step.**

The document **D2** is regarded as being the closest prior art to the subject-matter of claim 20.

D2 discloses (the references in parentheses applying to this document) a method of manufacturing a composition for cleaning process containing mineral oil and a gelling agent, said method includes the steps of mixing the mineral oil and the gelling agent (ester-terminated polyamide resin) together at elevated temperature until the resin completely dissolves in the mineral oil (see cited passages of D2) to form homogenous mixture.

The subject-matter of claim 20 differs to D2 in that the method comprises a further thereafter step consisting in adding an **emulsifying agent** to the mixture and said method is directed to the manufacture of cleaning composition according claim 1, therefore containing **aqueous sensitive component**.

The problem to be solved by the present invention may therefore be regarded as method of manufacturing a cleaning composition containing an aqueous sensitive component for prolonged periods of time in liquid or gel formulation which would not disintegrate the water soluble sachet.

None of the cited documents discloses such a problem.

**Therefore the subject-matter of claim 20 and of its depending claims 21-24 is new and involves an inventive step.**



## Claims:

1. A cleaning composition suitable for use in a cleaning or washing process, said composition locatable in a single compartment of an aqueous sensitive device and including at least one aqueous sensitive component and a non-aqueous carrier component for stabilising said aqueous sensitive component, characterised in that said non-aqueous carrier component includes a mineral oil, a gelling agent and an emulsifying agent for emulsifying the mineral oil.
2. A composition according to claim 1 characterised in that the aqueous sensitive component is substantially homogeneous with the non-aqueous carrier component.
3. A composition according to claim 1 characterised in that the emulsifying agent is or includes a surfactant.
4. A composition according to claim 1 characterised in that the emulsifying agent is provided in an amount between 1-10% by weight in the composition.
5. A composition according to claim 1 characterised in that the aqueous sensitive device is an aqueous soluble sachet.
6. A composition according to claim 1 characterised in that in that the aqueous sensitive component is or includes a bleaching agent.
7. A composition according to claim 6 characterised in that the bleaching agent is a halogen based bleaching agent.

8. A composition according to claim 6 characterised in that the bleaching agent includes any or any combination of sodium percarbonate, dichlorocyanurate, bromo-hydantoin or tetracetylene diamine.
9. A composition according to claim 6 characterised in that the composition includes a bleach activator for activating said bleaching agent when mixed with an aqueous solution.
10. A composition according to claim 1 characterised in that the aqueous sensitive component is or includes an enzyme.
11. A composition according to claim 1 characterised in that the gelling agent is provided in an amount between 1-10% by weight of the composition.
12. A composition according to claim 1 characterised in that the gelling agent is a tertiary amide terminated polyamide or hydrocarbon -terminatedpolyether-polyamide block copolymer.
13. A composition according to claim 1 characterised in that the composition includes any or any combination of one or more detergent builders, fragrant components, inert fillers, water softeners, detergents, pigments, dyes or optical brighteners and enzymes.
14. A composition according to claim 1 characterised in that the mineral oil is C<sub>20</sub>-C<sub>28</sub> paraffin.
15. A composition according to claim 1 characterised in that the gelling agent is substantially soluble in the mineral oil.

16. A device for containing a composition as defined in claim 1.
17. A device according to claim 16 characterised in that the device is an aqueous sensitive device.
18. A water soluble sachet, said sachet containing a cleaning composition suitable for use in a cleaning or washing process, said composition contained in a single compartment in said water soluble sachet, said composition including at least one bleaching agent, one or more bleach activating agents and a non-aqueous carrier component for stabilising said bleaching agent, characterised in that said non-aqueous carrier component includes a mineral oil, a gelling agent substantially soluble in said mineral oil and an emulsifying agent for emulsifying the mineral oil.
19. A water soluble sachet according to claim 18 characterised in that one or more enzymes are contained in the composition and/or sachet.
20. A method of manufacturing a cleaning composition according to claim 1, characterised in that said method includes the steps of mixing the mineral oil and the gelling agent together at a temperature at or above the melting point of the gelling agent until the gelling agent substantially dissolves in the mineral oil to form a substantially homogenous mixture, thereafter adding an emulsifying agent to the mixture.
21. A method according to claim 20 characterised in that the composition is cooled to a pre-determined temperature

whereupon one or more water softener components and/or chelating agents are added to the composition.

22. A method according to claim 20 characterised in that the temperature is 40°C or below.
23. A method according to claim 20 characterised in that one or more bleaching agents and/or bleach activators and are then added to the composition.
24. A method according to claim 20 characterised in that one or more bleaching agents, bleach activators and/or enzymes are then added to the composition.
25. A composition according to claim 1 characterised in that it is an auto dishwashing gel composition.